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EXAMINER

BEHREND, HARVEY E

ART UNIT	PAPER NUMBER
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3641

DATE MAILED 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED 03/03/2004

Office Action Summary

Application No.
09/659377

Applicant(s)

Johansson et al

Examiner

Behrend

Group Art Unit

3641

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 5/27/03 and 3/12/03

☒ This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 15, 16, 20, 22-29, 31-44, 107-109 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 15, 16, 20, 22-29, 31-44, 107-109 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

1. Page 4 of the 5/27/03 response refers to "applicant's second preliminary amendment of April 8, 2002 that corresponds to an amendment dated January 4, 2002 in Reexamination No. 90/005,098 now merged with this Reissue".

This re-issue file does not contain an amendment filed April 8, 2002.

The January 4, 2002 amendment (Paper No. 28) in Reexamination No. 90/005098, was not entered into the reexamination file as per the Sept. 13, 2002 Decision Vacating Final Office Action in Reexamination Proceeding and Decision Merging Reexamination and Reissue Proceedings (Paper No. 29).

See page 7 lines 3-6 (particularly lines 5 and 6) of said Sept. 13, 2002 Decision (Paper No. 29) which states:

"Accordingly, the final Office action of October 4, 2001, in the '5098 reexamination proceeding is hereby, ab initio, vacated. The amendment after final Office action filed on January 4, 2002, will not be entered into the reexamination file." (Underlining added).

2. The amendment filed 5/27/03 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The amendment to col. 10 lines 65.

Applicant is required to cancel the new matter in the reply to this Office Action.

3. In regard to the statements on page 19 of the 5/27/03 response regarding claim 30, the examiner does not consider Figs. 3B-3F as illustrating the subject matter as claimed in claim 30.

The examiner thus still considers the drawings as objectionable as not illustrating the features of claim 30 as set forth in section 17 on page 11 of the 2/25/03 Office action.

Patent Owner on said page 19 of the 5/27/03 response has authorized cancellation of claim 30 if the examiner does not agree that no new drawing is necessary.

In view of said authorization, claim 30 has been cancelled.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15, 16, 20, 25, 35-44, 107, 109 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support in the original disclosure for reciting that the means for restoring pressure drop, is positioned adjacent just one part length fuel rod.

There is no support in the original disclosure for stating that the means for restoring pressure drop is located in the "interstitial volumes between fuel rod

cells" (the specification on col. 5 lines 2-4 refers instead to the interstitial volumes between fuel rods).

As to Patent Owner's arguments, note the discussion in section 1 above.

6. Claims 15, 16, 20, 35-44, 107, 109 are rejected under 35 U.S.C. 251 as being based upon new matter added to the patent for which reissue is sought.

The added material which is not supported by the prior patent is as follows:

The recitation that the means for restoring pressure drop, is positioned adjacent just one part length fuel rod.

There is no support in the original disclosure for stating that the means for restoring pressure drop is located in the "interstitial volumes between fuel rod cells" (the specification on col. 5 lines 2-4 refers instead to the interstitial volumes between fuel rods).

As to Patent Owner's arguments, note the discussion in section 1 above.

7. Claim 15, 16, 20, 35-44, 107, 109 are rejected under 35 U.S.C. 251 as being broadened in a reissue application filed outside the two year statutory period. A claim is broader in scope than the original claims if it contains within its scope any conceivable product or process which would have infringed the original patent. A claim is broadened if it is broader in any one respect even though it may be narrower in other respects.

Reciting that the means for restoring pressure drop, is positioned adjacent just one part length fuel rod broadens the claims.

Reciting that spacers from the second group of spacer can be at locations other than above the part length rod broadens the claims so that they now

specifically include all locations, i.e. locations above the part length rods and location other than above the part length rods.

See also the discussion of Patent Owner's arguments in section 1 above.

8. Claim 15, 16, 20, 35-44, 107, 109 are rejected under 35 U.S.C. 251 as being improperly broadened in a reissue application made and sworn to by the assignee and not the patentee. A claim is broader in scope than the original claims if it contains within its scope any conceivable product or process which have infringed the original patent. A claim is broadened if it is broader in any one respect even though it may be narrower in other respects.

Reciting that the means for restoring pressure drop, is positioned adjacent just one part length fuel rod broadens the claims.

Reciting that spaces from the second group of spacers can be at location other than above the part length rods broadens the claim so that they now specifically include all locations, not just locations above the part length rods.

Note the discussion of Patent Owner's arguments in section 7 above.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 15, 16, 107, 109 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japan 1-176986.

The claimed means for restoring at least some of the decreased pressure drop, reads on the "thicker" spacer grid, as well as on the vanes (e.g. note the vane 20 in Fig. 6 which is not directly above the part length rod).

Patent Owner admits on page 20 of the 9/6/00 response in Re-exam 90/005098 that the reference shows spacers above the part length rods with relatively larger wall thickness and downwardly directed projections.

It is noted that even Patent Owners specification on col. 5 lines 11+ states that one of this his means for increasing the pressure drop, is the use of spacers with larger wall thickness.

Since the reference illustrates an expedient that is identical to Patent Owner's, this system of the reference must also inherently function in the same manner to produce the same results as that recited in the claims.

As to limitations which are considered to be inherent in a reference, note the case law of In re Ludtke, 169 USPQ 563, In re Swinehart, 169 USPQ 226, In re Fitzgerald, 205 USPQ 594, In re Best et al, 195 USPQ 430 and In re Brown, 173 USPQ 685, 688.

Note that statements as to what may happen in a method of operation, or statements of intended or desired use, do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 152 USPQ 335; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

Patent Owner's arguments are unpersuasive.

As to the argument bridging pages 10 and 11 of the 5/27/03 response, it is immaterial as to whether or not the "means for restoring at least some of the

pressure drop" (e.g. thicker spacer grid, vanes or projections) is in a spacer through which a part length rod projects, because the claims do not require such.

Claim 15 recites only that the "means for restoring... pressure drop" is in at least some of the second group of spacers in the upper annular flow regime and, that said "means for restoring" is "adjacent one or more of said part length rods".

Fig. 6b of the reference clearly shows vane or projection 20 as being "adjacent" part length rod 21.

In any event, note page 9 of the English language translation of the reference which states:

"The thickness of the round cell spacer lattice occupying the position 202 among the short fuel rods in the first practical example of the present invention was increased and protrusions facing inward were installed in the lower part." (Underlining added).

Additionally, page 7 of said English language translation states that the Fig. 1 spacer shows the first practical example of the invention of the reference (i.e. increased thickness of the round cell spacer lattice 101 and protrusions 102 facing the thickness being attached to the bottom part of the spacer lattice) and, that two of said Fig. 1 spacers are installed in the upper part of the fuel assembly and that five of said Fig. 1 spacers (with the increased thickness 101 and protrusions 102) are installed in the lower part of the fuel assembly in a location where there are short fuel rods.

The above recited references to pages 9 and 7 of said English language translation of the reference also rebuts Patent Owner's argument in the

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paragraph bridging pages 10 and 11 of the 5/07/03 response, that the reference only shows a "means for restoring some of the pressure drop" that is located axially above the part length rod 21.

The examiner also does not agree that Fig. 6 of the reference shows projection 20 (or even the tip of projection 20) as being located axially above the part length rod 21 (such can even be seen by simply drawing a line upwardly from the outer edge of part length rod 21).

Additionally, page 9 lines 1-15 of said English language translation states that the protrusions 20 can have then ends or tips nearly equivalent to the circumference of the part length rods 21 (e.g. as in Fig. 6b of the reference) or the tips of the protrusions 20 can be set apart from (spaced from) the circumference of the part length rods by 0.5 mm or more.

Patent Owner on page 11 of the 5/27/03 response argues that dependent claim 107 recites the presence of swirl vanes.

This argument is incorrect as dependent claim 107 refers to vanes, not swirl vanes.

The claimed vanes of dependent claim 107 read on either protrusions 20 in Fig. 6b of the reference or protrusions 102 in Fig. 1b of the reference (note pages 6 and 7 of the English language translation).

Notice is also taken of a decision dated Oct. 18, 2002, Appeal No. T 0648/98 - 3.4.1, in an opposition proceeding in the European Patent Office involving the European counterpart application to U.S. Patent No. 5229068 which resulted in the cancellation of amended claims similar in nature to the claims

under consideration in the present merged proceedings (see Pager No. 32 filed 3/12/03).

Said decision indicates that the Patent Owner basically advanced the same arguments concerning the Japanese reference in said opposition proceeding as are presented in the present case.

It is noteworthy, that the Board in said opposition proceeding, also found the Patent Owner's arguments to be unpersuasive.

12. Claims 15, 16, 20, 22-29, 31-44, 107-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-176986 in view of Leclercq, for the reasons set forth in section 9 of the 2/25/03 Office action.

Patent Owner's arguments are unpersuasive.

As to the arguments at the top of page 13 of the 5/27/03 response, it is noted that only claim 20 (not claim 16) recites the presence of swirl vanes.

A swirl vane means is any vane means that will impart a swirling motion to the coolant. It is the examiner's position that the position and shape of the slanted vane means 40 in the corners of the fuel cells of Leclercq (e.g. see Figs. 7, 8), will inherently impart a swirling motion to the coolant.

In any event, as indicated for example on page 7 of the 2/25/03 Office action, the use of vanes formed of twisted elements for imparting a swirl to the coolant are conventionally known advantageous art alternatives and their use is hence prima facie obvious.

Even Patent Owner in the admitted prior art in lines 14-26 of col. 3 of Patent No. 5229068 states the advantageous effects of swirl vanes in boiling water reactors was known in the art.

The examiner has not stated that it would have been obvious to use swirl vanes in the specific locations recited in Patent Owner's independent claims in combination with part length fuel rods.

The examiner has indicated it would have been prima facie obvious to have modified the primary reference (Japan 1-176986) by placing swirl vanes at locations as indicated in said section 9 of the 2/25/03 Office action, thus obtaining the admittedly known advantages of the use of swirl vanes.

Note that the primary reference and the secondary reference are each directed to increasing coolant cross flow or turbulence in the downstream part of a nuclear fuel assembly and, that they both accomplish such by the use of grids with fins and grids that are thicker (have thicker walls) and thicker walled grids with fins. These desired functions and the means to accomplish such are the same in both a BWR and a PWR thus showing that these advantageous expedients known for use in one reactor system (including one with part length rods) are also useful for the same reason in the other reactor system, (including only full length rods).

Leclercq show another alternative advantageous arrangement for increasing turbulence in the downstream portion of the fuel assembly is by decreasing the spacing between the grids and thus also increasing the number of grids (see for example, col. 2 lines 37+) and to so modify the primary reference

would have been prima facie obvious as it would provide the advantage of increasing the desired turbulence.

Leclercq shows it is not necessary for the lower grids to have fins to promote mixing or turbulence because the coolant at this level in the fuel assembly is still far from the maximum temperature it will have at the fuel assembly outlet (e.g. see col. 4 lines 20-40) (note that this expedient, function and reasoning remains the same whether or not the fuel assembly has part length rods and whether it is used in a PWR or a BWR). Note that the use of lower grids with no fins or vanes is advantageous as it reduces the amount of non-fuel material in the reactor core as well as reducing the complexity and cost of the spacer grids.

Leclercq shows that the top or uppermost grid in a fuel assembly can be formed of material of greater mechanical strength such as Inconel (because it is in a region of reduced neutron flux) and since its sole function is to hold the fuel rods in the desired axial position, it is not necessary for it to have fins and it can advantageously be designed to minimize pressure losses (e.g. see col. 5 line 67 to col. 6 line 11) (note that this expedient, function and reasoning remains the same whether or not the fuel assembly has part length rods and whether it is used in a PWR or a BWR).

The use of a 10 x 10 array or matrix, etc., is considered obvious on its face as making advantageous use of more up to date known fuel assembly arrangements.

Note that it is not necessary for the references to also disclose the Patent Owner's reasons for utilizing the known expedients.

13. Claims 15, 16, 20, 22-29, 31-44, 107-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-176986 in view of Leclercq as applied to claims 15, 16, 20, 22-29, 31-44, 107-109 above, and further in view of Thomazet et al (4804516), Japan 2192690, Japan 3149592, Japan 1138493 or Japan 2-126388 for the reasons set forth in section 10 of the 2/25/03 Office action.

Patent Owner's arguments are unpersuasive.

The additional secondary references set forth in this rejection present expedients for overcoming prior art problems, enhancing performance or usefulness of a fuel assembly (including a BWR fuel assembly).

It remains the examiner's position that it would have been *prima facie* obvious to have so modified the primary reference in the manner indicated so as to obtain the advantages set forth in any of said additional secondary references.

It is not necessary for the references to teach Patent Owner's reasons for utilizing various known expedients or, Patent Owner's desired results.

The present claims are apparatus claims, not methods of operation.

14. Claims 15, 16, 20, 22-29, 31-44, 107-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-176986 in view of Leclercq as applied to claims 15, 16, 20, 22-29, 31-44, 107-109 above, and further in view of any of Orii et al (5112571), Hatfield or Buettiker, for the reasons set forth in section 11 of the 2/25/03 Office action.

Patent Owner's arguments are unpersuasive.

The primary reference already illustrates the use of flow vanes in a BWR fuel assembly having part length rods.

The advantageous use in a fuel assembly of vanes in the form of swirl vanes, is already known as evidenced by the teachings thereof in any of Orii et al, Hatfield or Buettiker.

Even Patent Owner in the admitted prior art in lines 14-26 of col. 3 of Patent No. 5229068 states the advantageous effects of swirl vanes in boiling water reactors was known in the art.

If it is the examiner's position that it would have been prima facie obvious to have modified the primary reference by utilizing swirl vanes for the vanes disclosed therein, to thus obtain the admittedly known advantages of the use of vanes in the form of a swirl.

15. Claims 15, 16, 20, 22-29, 31-44, 107-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-176986 in view of Leclercq and any of Thomazet et al, Japan 2192690, Japan 1138493, or Japan 3149592 as applied to claims 15, 16, 20, 22-29, 31-44, 107-109 above, and further in view of any of Orii et al, Hatfield or Buettiker, for the reasons set forth in section 14 above.

16. Claims 15, 16, 22-29, 31-34, 107-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-176986 in view of either Japan 2192690 or Japan 3149592.

The references have all been discussed above. All references illustrate BWR fuel bundles. It would have been prima facie obvious to have modified the primary reference by having the spacers closer together in the upper portion of the fuel bundle, as shown to be old and advantageous in this art by either secondary reference.

Note that the use in the primary reference of 10 x 10 matrices, up to 12 part length rods, etc., would have been obvious on its face as it merely makes use of conventionally known and more up to date alternatives.

Patent Owner's arguments are unpersuasive.

While claim 15 does not require decreased spacing between the spacers in the upper region of the fuel bundle, the claimed "means for restoring at least some of the decreased pressure drop", reads on the use of additional spacers in said upper region of the fuel bundle.

The secondary references each refer to problems in BWR fuel bundles and they each present an expedient for overcoming said problems (the expedient being the use of decreased spacing between the spacers in the upper region of the fuel bundle).

The primary reference also shows a BWR fuel bundle and it is logical and reasonable that the problems disclosed in either of the secondary references, would also exist in the primary and, that the expedient disclosed in either secondary reference of decreased spacing between the spacers in the upper region of the fuel bundle, would also be advantageous for overcoming this same

problem which must be present in the BWR fuel assembly of the primary reference.

Patent Owner has not show that the problems disclosed in either secondary reference, would not be present in a BWR fuel assembly with part length rods nor, has Patent Owner presented any reason why the artisan would reasonably not expect these same problems to exist in a BWR fuel assembly just because it includes one or more part length rods.

17. Claims 15, 16, 20, 35-44, 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 1-176986 in view of Japan 1138493 alone or in view of any of Orii et al, Hatfield or Buettiker.

All references have been discussed above. Note that Japan 1138493 (in a manner similar to the primary reference) shows the use of flow tabs on specified grids to promote high mixing. It would have been prima facie obvious to have utilized such flow tabs in the primary reference to obtain the high mixing referred to in Japan 1138493.

While Japan 1138493 may not clearly illustrate the flow tabs, it would have been obvious on its face to have utilized such tabs in the form of swirl vanes because such represent no more than the use of conventional known and advantageous known and advantageous alternatives (see any of Orii et al, Hatfield or Buettiker).

Patent Owner's arguments are unpersuasive.

Japan 1138493 shows that problems exist in BWR fuel assemblies, that said problems can advantageously be overcome by the use of a combination of

different types of spacer grids and, that in a seven spacer grid fuel assembly, the fourth and fifth spacers should be high-mixing type spacers such as spacers having flow tabs (vanes) (e.g. see pages 2-5 of the English language translation thereof).

The primary reference also shows a BWR fuel bundle and it is logical and reasonable that the problems disclosed in Japan 1138493 would also exist in the primary reference and, that said expedients disclosed in Japan 1138493, would also be advantageous for overcoming this same problem which must be present in the BWR fuel assembly of the primary reference.

Patent Owner has not shown that the problems disclosed in Japan 1138493 would not also be present in a BWR fuel assembly with part length rods nor, has Patent Owner presented any reason why the artisan would reasonably not expect these same problems to exist in a BWR fuel assembly just because it includes one or more part length rods.

The primary reference already illustrates the use of flow vanes in a BWR fuel assembly having part length rods.

The advantageous use in a fuel assembly of vanes in the form of swirl vanes for forming a high mixing type spacer grid, is already known as evidenced by the teachings thereof in any of Orii et al, Hatfield or Buettiker.

Even Patent Owner in the admitted prior art in lines 14-26 of col. 3 of Patent No. 5229068 states the advantageous effects of swirl vanes in boiling water reactors was known in the art.

It would have been prima facie obvious to have utilized in the primary reference, high mixing type spacer grids with tabs or vanes as taught by Japan 1138493 and to have formed said high mixing type spacer grids with swirl vanes as taught to be old and advantageous by any of Orii et al, Hatfield or Buettiker, thus obtaining the admittedly known advantages of the use of vanes in the form of swirls.

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Applicant is reminded of the continuing obligation under 37 CFR 1.178(b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. 5229068 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely apprise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harvey Behrend whose telephone number is (703) 305-1831. The examiner can normally be reached on Tuesday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 306-4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Behrend/vs
February 10, 2004

HARVEY E. BEHREND
PRIMARY EXAMINER